

BTG2 (Q-22): sc-130985

BACKGROUND

B cell translocation gene proteins, also designated BTG1-4, are members of a novel anti-proliferative gene family and play a role in transcription regulation. BTG genes are considered immediate early genes whose expression is induced in response to mitogenic as well as differentiative and antiproliferative factors. Expression of BTG1 is maximal in the G₀/G₁ phases of the cell cycle and is downregulated when cells progress through G₁. BTG2 is a p53 inducible, anti-proliferative protein that regulates the G₁/S transition of the cell cycle. BTG2 expression increases in response to DNA damage, cell differentiation, cell quiescence, cell contact and as part of a positive feedback mechanism in response to growth stimulation. High levels of BTG2 are present in kidney proximal tubules, lung alveolar bronchial epithelium and the basal cell layer of prostate acini. BTG1 and BTG2 both contain LXXLL motifs, referred to as nuclear receptor boxes, which are involved in the regulation of ER-mediated activation. Human BTG3 protein is abundantly expressed in testis, prostate, ovary, thymus and lung.

REFERENCES

1. Rouault, J.P., et al. 1992. BTG1, a member of a new family of antiproliferative genes. *EMBO J.* 11: 1663-1670.
2. Rouault, J.P., et al. 1996. Identification of BTG2, an antiproliferative p53-dependent component of the DNA damage cellular response pathway. *Nat. Genet.* 14: 482-486.
3. Prevot, D., et al. 2001. Relationships of the antiproliferative proteins BTG1 and BTG2 with CAF1, the human homolog of a component of the yeast CCR4 transcriptional complex: involvement in estrogen receptor α signaling pathway. *J. Biol. Chem.* 276: 9640-9648.
4. Tirone, F. 2001. The gene PC3(TIS21/BTG2), prototype member of the PC3/BTG/TOB family: regulator in control of cell growth, differentiation, and DNA repair? *J. Cell. Physiol.* 2: 155-165.

CHROMOSOMAL LOCATION

Genetic locus: BTG2 (human) mapping to 1q32.1.

SOURCE

BTG2 (Q-22) is an affinity purified rabbit polyclonal antibody raised against synthetic BTG2 peptide of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

BTG2 (Q-22) is recommended for detection of BTG2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BTG2 (Q-22) is also recommended for detection of BTG2 in additional species, including equine, bovine, porcine, feline and canine.

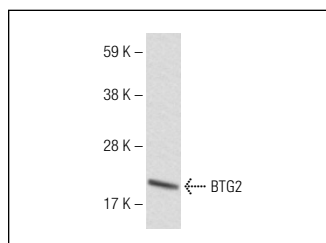
Suitable for use as control antibody for BTG2 siRNA (h): sc-43645, BTG2 siRNA (m): sc-44818, BTG2 shRNA Plasmid (h): sc-43645-SH, BTG2 shRNA Plasmid (m): sc-44818-SH, BTG2 shRNA (h) Lentiviral Particles: sc-43645-V and BTG2 shRNA (m) Lentiviral Particles: sc-44818-V.

Molecular Weight (predicted) of BTG2: 17 kDa.

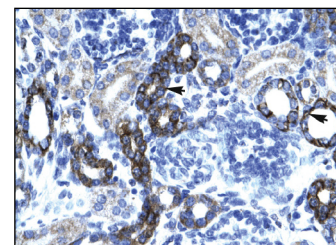
Molecular Weight (observed) of BTG2: 20 kDa.

Positive Controls: human fetal lung tissue extract.

DATA



BTG2 (Q-22): sc-130985. Western blot analysis of BTG2 expression in human fetal lung tissue extract.



BTG2 (Q-22): sc-130985. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing membrane localization.

SELECT PRODUCT CITATIONS

1. Hu, X.D., et al. 2011. BTG2 is an LXXLL-dependent co-repressor for androgen receptor transcriptional activity. *Biochem. Biophys. Res. Commun.* 404: 903-909.
2. Karve, T.M. and Rosen, E.M. 2012. B-cell translocation gene 2 (BTG2) stimulates cellular antioxidant defenses through the antioxidant transcription factor NFE2L2 in human mammary epithelial cells. *J. Biol. Chem.* 287: 31503-31514.

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Try **BTG2 (1A5): sc-517187**, our highly recommended monoclonal alternative to BTG2 (Q-22).